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SAMPLES

A Sampling of NOAA Research People and Projects

SUMMER 2000 Office of Oceanic and Atmospheric Research VOLUME 1 NUMBER 3

President Honors NOAA Research Scientist

Dr. Nathan Mantua, an atmospheric scientist working at NOAA's joint institute (JISAO) in Seattle WA, received a Presidential Early Career Award, the nation's highest award for young scientists. He was one of 60 scientists honored at White House ceremony.

Dr. Neal Lane, Director, White House Office of Science and Technology Policy, and Dr. Nathan Mantua (right)

"Dr. Mantua has made significant contributions to the understanding of atmosphere and ocean dynamics," said David L. Evans, NOAA Assistant Administrator. "For a scientist early in his career, he has an impressive body of work in the area of climate variability and its impact. We are very proud of his achievements."

Since 1995 Dr. Mantua has worked with the Joint Institute for the Study of the Atmosphere and Oceans (JISAO) at the University of Washington. One of his major projects is a study of the role of climate information on resource management, exploring both short and long-term climate issues.

Dr. Mantua received his Ph.D. degree from the University of Washington's Department of Atmospheric Sciences in 1994. His thesis work focused on interannual climate variability that is caused by large-scale interactions in the tropical Pacific atmosphere/ocean system. His contributions include a comparison of observations and model simulations of ENSO and an assessment of the predictability of El Niño using various coupled atmosphere/ocean models. He was awarded a postdoctoral fellowship with the International Research Institute for Climate Prediction at the Scripps Institute for Oceanography, La Jolla, California.

His interests in commercial and sport salmon fishing industries spawned a unique understanding of the connections between climate and fishery science, leading to a number of collaborations with fisheries scientists at the University of Washington and at other research institutions. He serves on the Scientific Steering Committee for the International Global Oceans Ecosystems Dynamics Program, a NOAA/National Science Foundation-sponsored effort devoted to better understanding the role of climate variations in marine ecosystems.

Going to See What's in the Sea

Captain Nemo would be very proud. Voyages to the bottom of the sea have been targeted by the White House as part of a national oceans exploration strategy.

During a White House Millennium Council matinee entitled Exploration Under the Sea—Beyond the Stars, President Clinton announced steps to launch a new era of ocean exploration. The president announced that in collaboration with marine research institutions and universities, federal researchers will explore the Hudson Canyon off New York-New Jersey, deep reefs and seeps off the Gulf coast of Florida, and the Davidson Seamount off central California.

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Sea Grant Rides the Radio Waves

Think Sea Grant and naturally one thinks of waves. In addition to the ocean waves, Woods Hole Sea Grant also rides the radio waves.

Low power radio – a specialized form of AM radio broadcasting first used to inform travelers of weather and traffic conditions and now being used by state and national parks, theme parks and airports – is being used creatively and effectively by Woods Hole Sea Grant in Massachusetts. They produce "Sound Waves," a pilot program to inform the hundreds of thousands of visitors to the area each summer about the history and environment of the area, along with visitor information.

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We Celebrate and Learn from Our Differences

There are many faces throughout NOAA Research – each one bringing a wealth of skills and experiences, dreams and accomplishments, and ideas and opinions. As a member of NOAA's Diversity Council, I see the council's motto "Many Faces, One Vision" in action every day throughout NOAA Research. Although we come from different backgrounds, we share a common goal – to accomplish NOAA's mission. We all want to make our planet a better place for future generations.

NOAA Research is a special place – we are the explorers, finding answers to challenging scientific questions, and often finding new questions along the way. With a mission as critical and expansive as ours, we need individuals with many skills and talents. We need the thinkers and the dreamers, those who keep us organized and those who perform the myriad tasks necessary to keep an office operating smoothly, those who sail on ships and those who chase after storms. We all have important roles to play in NOAA Research's success. To foster that success, NOAA and NOAA Research are committed to providing a supportive and innovative work environment for all that will enable employees to reach their full potential.

Throughout the year, NOAA celebrates its diverse workforce with special events. I encourage you to participate in some of these activities, for as we learn more about each other we often learn more about ourselves. NOAA's Diversity Office also has many resources available – visit the web site at: www.rdc.noaa.gov/diversity.html for more information about NOAA's diversity program.

As we celebrate NOAA's 30th Anniversary this year, let us also celebrate the men and women who have contributed so much in the past and those who are moving us forward into the future.

Louisa Koch
Deputy Assistant Administrator

CICOR Sets Sights on Sea and Sky

Looking out over the Atlantic Ocean on a clear summer day, it is hard to tell where the ocean ends and the sky begins. This is also an apt description of the work conducted by NOAA's Cooperative Institute for Climate and Ocean Research (CICOR), located at the Woods Hole Oceanographic Institution (WHOI) in Woods Hole, Massachusetts.

CICOR focuses on three research themes: coastal ocean and near-shore processes, the ocean's participation in climate and climate variability, and marine ecosystems processes. Like many research institutions, it works closely with other facilities, including the Great Lakes Environmental Research Laboratory in Ann Arbor, Michigan, and the Atlantic Oceanographic and Meteorological Laboratory in Miami, Florida.

"We think we can make a valuable contribution," said Bob Weller, CICOR director, as he welcomed the NOAA Research outreach coordinators to Woods Hole in June.

CICOR, established in 1998, provides a framework at WHOI for coordinating NOAA-funded research, building ties between WHOI scientists and their colleagues in NOAA laboratories, and for developing cooperative NOAA-funded research at academic institutions in the northeastern United States.

Scientists around the world have been gathering in Woods Hole for more than a century. The abundance of marine plant and animal life is one of the many attractions Woods Hole holds for researchers.

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Science Festival 2000
Boulder, Colorado
September 15 - 16, 2000

NOAA 30th Anniversary
October 3, 2000

Ocean Exploration Strategy
Report due to
President Clinton
October 10, 2000

NOAA Weather Partners
Open House
Norman, Oklahoma
October 14, 2000

Cukes in Canals Go With the Flow

Color-coded cucumbers were set afloat in a Delaware canal in July to help researchers learn more about water flow. The project is being conducted by the Inland Bays Citizen Monitoring Program, which is managed by the University of Delaware Sea Grant Marine Advisory Service with support from the Department of Natural Resources and Environmental Control. "The goal of our drifter deployments is to get a better understanding of the general direction of water flow in the canel and the rate of flow," said Joe Farrell, the university resource management specialist who is overseeing the monitoring program.

Researchers hope that the 150 floating cukes will help define the potential impacts of wastewater discharge into to canal and develop cost-effective ways to reduce that discharge. Cucumbers were selected for the experiment because they float, they are biodegradable, and they are readily available in Delaware, Farrell said. They were donated by Vlasic Foods in Millsboro, DE.

Circle of Excellence

The Washington Sea Grant Program has won a Silver Medal in the National Council for the Advancement and Support of Education Circle of Excellence Awards, Media Relations Special Projects category. Washington Sea Grant won the award by unanimous judges' decision for "Sex and Violence on Tatoosh," a series of live field reports by Julia Parrish published on the ABC News web site.

Julia Parrish is a Sea Grant-funded research assistant professor of zoology at the University of Washington. For nearly a decade, she has studied a breeding colony of murres on Tatoosh Island, an island of the coast of the Olympic Penninsula in Washington State. This seabird population at Tatoosh has been declining steadily.

"Sex & Violence on Tatoosh" can still be accessed from the Washington Sea Grant home page. (Go to www.wsg.washington.edu and click on ABCNEWS.com.) David Gordon and Robyn Ricks worked closely with Julia to prepare the reports for ABC news.

Water, Water, Everywhere

The water science and policy sectors met during a session organized by Rick Lawford of the Office of Global Programs and Holly Hartmann of the University of Arizona, during the spring meeting of the American Geophysical Union in Washington, DC. "Linking Hydrologic Sciences and Water Policy in the 21st Century" involved 14 presentations and two panel discussions. Preceding the sessions, Neal Lane, the president's science advisor, gave a special lecture in which he noted that there was a significant budget increase for Water Cycle Studies in 2001.

OAR People

Dr. A.R. Ravishankara (Ravi) has been elected as a member of the U.S. National Academy of Sciences. Election to membership in the Academy is considered one of the highest honors that can be accorded a U.S. scientist, and recognizes distinguished and continuing achievements in originial research. Ravi, who heads the Aeronomy Lab's Atmospheric Chemical Kinetics group, was cited *"for fundamental contributions to understanding and quantifying important processes critical to the chemistry of the atmosphere. He has used highly innovative techniques to advance the knowledge of ozone depletion, climate change, and atmospheric pollution. He has thereby played a leadership role in shaping understanding of global chemical changes."*

Dr. Susan Solomon traveled to Prague, Czech Republic, in June to be inducted as a Foreign member of the Academia Europaea, Earth & Cosmic (or planetary) Sciences Section. The Academia Europaea was founded in 1988 as an international, nongovernmental association of individual scientists and scholars from a wide variety of diciplines who are experts and leaders in their subjects. There are about 50 foreign members among the Academia's 1800 members.

Dr. Joachim Curtius, who recently began a postdoctoral position with the Aeronomy Lab's Atmospheric Chemical Kinetics group, has received the Otto Hahn Medal from the Max Planck Society. The award recognizes the excellence of Joachim's doctoral thesis on particulate emissions from aircraft. It carries a one-year stipend in support of his postdoctoral research.

Dr. Russell A. Moll is the new director of the California Sea Grant Program. Moll served as director of the Michigan Sea Grant Program since 1997 and is the president of the Sea Grant Association, which provides leadership to all 29 Sea Grant progams.

TexAQS 2000

This summer, NOAA scientists from the Aeronomy Lab, Air Resources Lab, Climate Monitoring and Diagnostics Lab, and Environmental Technology Lab will join other air quality field researchers from across the country to undertake the largest air quality study ever done in the State of Texas. The Texas Air Quality Study (TexAQS 2000) field program is one in a series of oxidant/aerosol studies which NOAA/Department of Commerce, the Department of Energy, and a number of university scientists have cooperatively conducted under the umbrella of the Southern Oxidants Study.

The goal of the study is to provide a better understanding of the basic chemical, meteorological, and atmospheric transport processes that determine air pollutant formation and transport along the Gulf Coast of southeastern Texas and to develop new scientific understanding that will assist policy-makers in devising ozone and particulate matter management strategies. The location was selected because the eastern half of Texas includes major urban areas with significant ozone pollution problems and possible difficulties meeting new national particulate matter standards. The unique chemical and meteorological features in this area also make it important from a scientific perspective.

Plans call for month of intensive sampling during August and September. Measurements of gaseous and particulate air pollutants will be made throughout the eastern half of Texas using both ground stations and aircraft. More information on the TexAQS can be found at www.utexas.edu/research/ceer/texaqs/.

More and Less in House Marks

The FY 2001 mark-up, or mark, NOAA Research received from the House of Represenatives and Senate on June 26 was $36M below the enacted FY 2000 appropriation before recissions. This mark represents the funding the House would like to give NOAA Research for the next fiscal year.

Most programs received substantial cuts below their FY 2000 appropriations. No funding was provided for the National Undersea Research Program or the Global Learning and Observations to Benefit the Environment (GLOBE) education project.

The mark does have some good points. Sea Grant's total is $2 million above the President's budget and the Great Lakes Environmental Research Laboratory in Ann Arbor, Michigan is $1 million above the President's request.

The Senate Appropriations committee mark on July 18 was higher than the House mark and did restore some base cuts and fund several program increases. When Congress resumes after Labor Day there will be a Conference to resolve the differences between the House and the Senate levels. A final decision on FY 2001 appropriations is expected in September or October.

(continued from page 1) ## Going to See

The President also directed the Commerce Department to convene a panel of leading ocean explorers, educators, and scientists to develop recommendations for a national oceans exploration strategy, and the National Undersea Research Program (NURP) will play a major role.

NURP knows this territory of "inner space" well. The world's only undersea laboratory/habitat *Aquarius,* has been home to many underwater scientists for up to 10 days at a time while they explored the coral reefs and other marine life surrounding the schoolbus-yellow structure anchored off of the coast of Florida's Key Largo.

The six NURP centers routinely use a variety of ships, remotely operated vehicles, and other sophisticated equipment to explore the wet world that exists in our oceans. Scientists have discovered creatures that do not need sunlight to grow and thrive on the chemical soup spewed by underwater volcanoes; ice worms that live in clumps of methane; and new and fascinating species of life that live in extreme dark depths.

Congratulations to the following three NOAA Research employees who have achieved 30 years of Federal service as of April 1, 2000:

Jason Ching, ARL
Kenneth Moran, ETL
Robert Hardesty, ETL

(continued from page 1) ## Sea Grant

"We have a captive audience," said Tracy Crago of Woods Hole Sea Grant. "We reach the visitors who are waiting in their cars to board the ferry to take them across to Martha's Vineyard."

The wait to make the seven-mile crossing from the mainland to the island can be as long as six hours. More than 375,000 cars make the ferry trip each year. Woods Hole Sea Grant saw this as a perfect audience with which to share a wealth of information about the area and about scientific discoveries of Woods Hole. There is even local weather from NOAA's Weather Radio.

In addition to signs posted near the parking/waiting areas, potential listeners receive an information card about "Sound Waves" when they make advance ferry reservations.

There are other low power radio Sea Grant projects in New York, Florida and Oregon.

Unscramble the letters to get cities/towns that have a NOAA Research office (i.e. NURP Center, Sea Grant College, OAR Lab or Joint Institute). [Hint: The letters in parantheses are the abbreviation of the state in which the city is located.]

1) ROFT NILSLOC *(CO)*
2) IMMIA *(FL)*
3) NAN OBRAR *(MI)*
4) RANOMN *(OK)*
5) OSYNT KOBOR *(NY)*
6) TELASET *(WA)*

Put the circled letters in order below to get the final answer- the only city that has a NURP Center, a Sea Grant College and an OAR Lab/Joint Institute:

Submit **final answer** to samplespuzzle@hq.oar.noaa.gov by September 30. The winner will be randomly chosen from all correct answers received and will receive a NOAA mug. ***Congratulations to Bob Smith of GFDL in Princeton, NJ. Bob was the winner of the Spring 2000 puzzle.***

Send Us a Sample ....

Let us know what you think about this newsletter. What's missing? What do you like? What don't you like. Send comments to Jana Goldman or Karen Tolson. ***janag@hq.oar.noaa.gov*** or ***karent@hq.oar.noaa.gov***